

Work Order ID 108969

@October-31-13 6:59:07 AM

108969

Page 1

Item ID: 649.5012

Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: Deflector

Stop *NS2*

Start Date: 10/31/13

Start Qty: 30.00

30

Cust Item ID:

Required Date: 11/14/13

Req'd Qty: 30.00

30

Customer:

Reference:

Approvals:

Process Plan: MLJDate: 13-10-31

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

649.5000

C

100

0.00

1000

BAND SAW

0.00

Bandsaw

Memo

Jeaspa Bandsaw

Cut Blanks at 3.75"

D. = 13/12/02

30

φ

110

0.00

110

HAAS CNC VERTICAL MACHINING #1

0.00

HAAS 1

Memo

HAAS CNC vertical machine #1

1-Machine per folio FB221

DWG REV: CFOLIO REV: AA

30

φ

SL 13-12-3

2- deburr and break all sharp edges

Work Order ID 108969

108969

Page 2

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Item ID: 649.5012

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Deflector

Start Date: 10/31/13

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Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start *NR1*

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop *NR2*

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

120

QC2- Inspect parts off machine FAI/FAIB

0.00

120

QC

Memo

0.00

Quality Control

30 0 13-12-3

130

QC8- Inspect parts - second check

0.00

130

QC

Memo

0.00

Quality Control

D.A. 13/12/05

30 0 DAS
08
9-89

140

Outsource process-Anodize per QSI017 4.1.10.1

0.00

140

Outsource4

Memo

0.00

Outsource process - Anodize

Issue P/O to ATG :

22353

1- Black Anodize as per Dwg 649.5000

2- PRIME AS PER DWG, SEE NOTE #2

Certification of Conformity is required

C2 13/12/11 (30)

October-31-13 6:59:07 AM

Page 3

IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV

30x 8p141-9

30

DAS 05

14.07.14

30x

14-01-14

Work Order ID 108969

October-31-13 6:59:07 AM

108969

Page 4

Item ID: 649.5012 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Deflector
Start Date: 10/31/13 Start Qty: 30.00 ***30*** Cust Item ID:
Required Date: 11/14/13 Req'd Qty: 30.00 ***30*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

190	QC21- Final Inspection - Work Order Release	0.00							
-----	---	------	--	--	--	--	--	--	--

190

QC

Memo

0.00

Quality Control

14-01-15
14-01-14

Picklist Print

October-31-13 6:59:11 AM

Page 1

Work Order ID: 108969

108969

Parent Item: 649.5012

649 5012

Parent Item Name: Deflector

Start Date: 10/31/13

Required Date: 11/14/13

Start Qty: 30.00

Required Qty: 30.00

Comments: IPP REV. C RQ 13/10/29 VERIFIED BY:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
649.5012E		Manufactured	No			100	f	132.0000	0.313	10			
649 5012F									**			13/12/02	
Deflector													

Location

Loc Qty

Loc Code

MAT036

132

92314

132

9.525 ft

APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 03693				SHEET 1 OF 1	
	DWG NO. 649.5000	REV: C	PREPARED BY B. PETERS	DATE: 11/14/12	EFFECT ON DWG <input type="checkbox"/> INC. <input checked="" type="checkbox"/> UNINC.	
	DWG TITLE: DEFLECTOR					
TRANSACTION CODES (TC) A-ADD C-CREATE R-REVISE D-DELETE		APPROVED BY: ENGR <i>[Signature]</i>	MFG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF: NEXT ORDER	
		REASON: ADDED ALTERNATE MATERIAL.				ECR: D-12-001

IS



PRIMARY MATERIAL: 7075-T651 ALUMINUM PER AMS-QQ-A-250/12.
ALTERNATE MATERIAL: 7075-T6511 ALUMINUM PER AMS-QQ-A-200/11.

SHEET 1, ZONE A2 IS:

F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL	SPECIFICATION
DOCUMENTS EFFECTED:				<input type="checkbox"/> RFMS <input type="checkbox"/> MDL <input type="checkbox"/> INSTALL INSTRUC <input type="checkbox"/> ICA <input type="checkbox"/> BOM	CHANGE CATEGORY <input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR	DER REVIEW REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

108969 MLS
13-10-31

108969

 MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12.

2 FINISH: HARD ANODIZE 1AW MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK;
PRETREAT PRC-DESOTO PR-148 ADHESION PROMOTER;
PRIME 1AW MIL-P-23377J TYPE I CLASS N; 1-2 MIL MAX.

3. DE BURR AND BREAK ALL SHARP EDGES.

4. IDENTIFY JAW MPP-120. LASER ETCH P/N AND REVISION, 12 PT. CENTURY GOTHIC.

5. ALL DIMENSIONS SHOWN PRIOR TO FINISH.

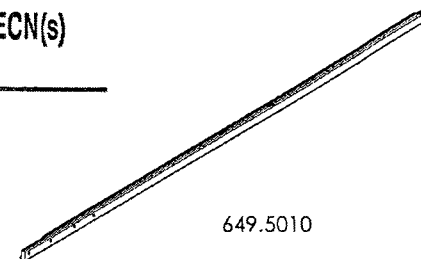
6 PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 649.5010 DEFLECTOR.SLDPRJT, LAST MODIFIED 04-16-12.

7 PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 649.5012 DEFLECTOR.SLDPRT, LAST MODIFIED 11-03-11.

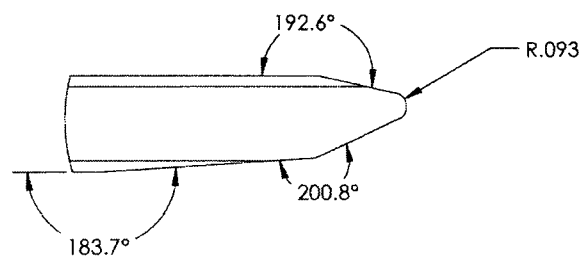
8 PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 649.5013 DEFLECTOR.SLDPRT, LAST MODIFIED 04-16-12.

UNINCORPORATED ECN(S)

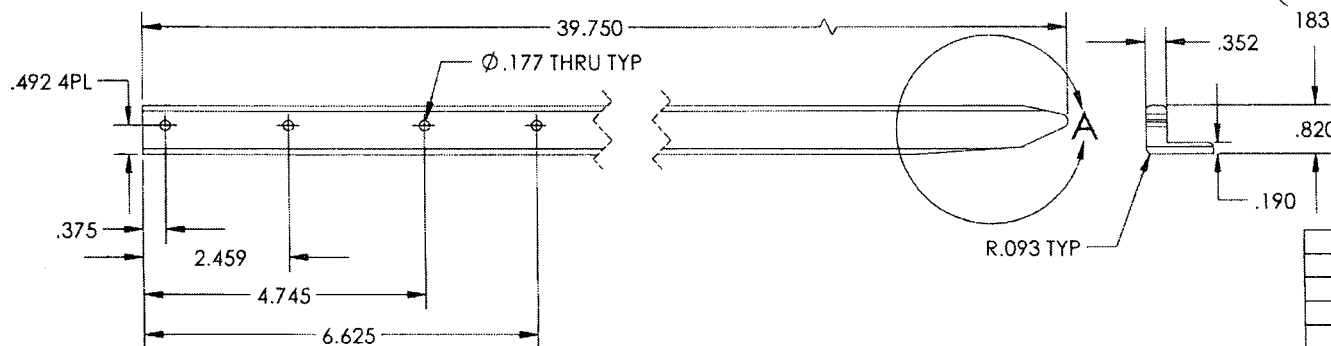
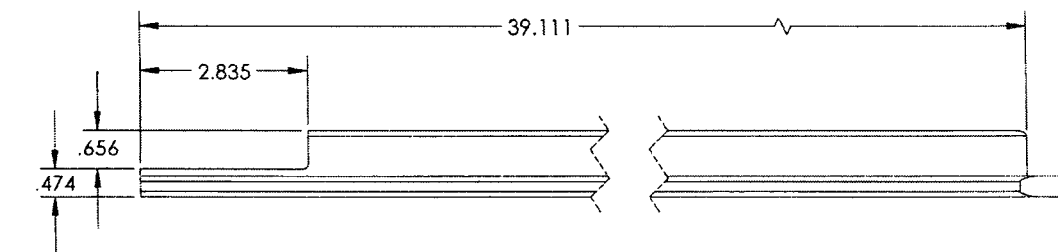
03693



649.5010



DETAIL A
SCALE 1 : 1

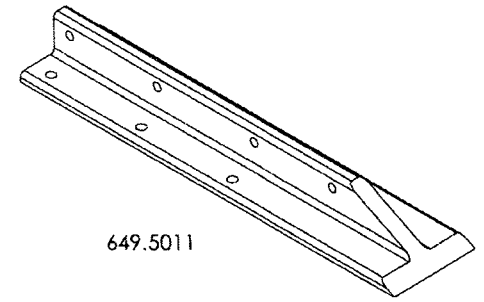
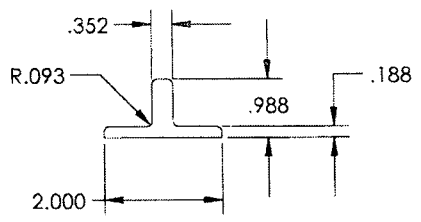
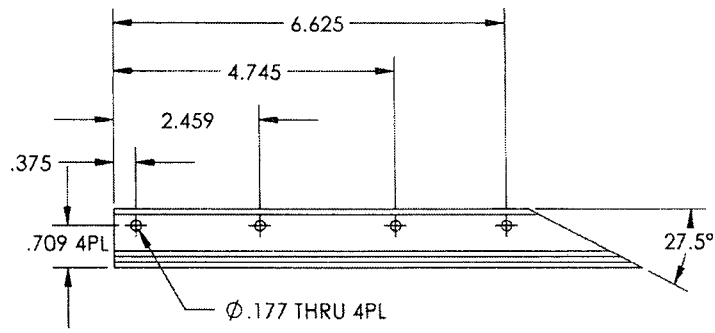
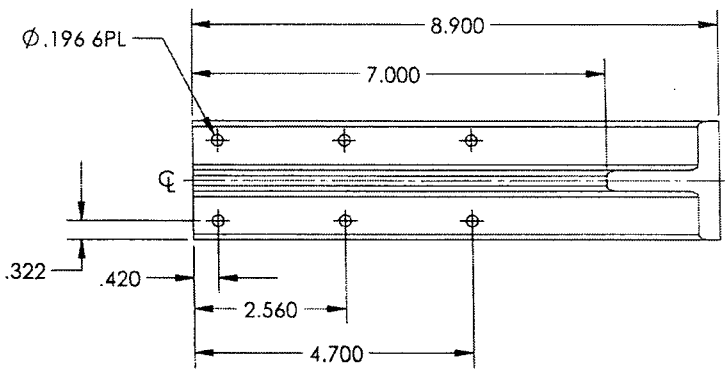


QTY	ORIGINAL DATE R02/04/00	1/05/01	PARTS LIST	
NEXT ASSY (S)	DRAWING BY A. CULSH	BY BUVAL	APICAL INDUSTRIES	
4700	DEWING APPROVAL P. BSAO		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA 92056-3512 (760) 724-5300	
	CONTRACT NO.		DEFLECTOR	
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1. 2 PLACE DECIMALS ± .02 2. 3 PLACE DECIMALS ± .003 3. 4 PLACE DECIMALS ± .0005			
	SCALE INCHES	1/2" = 1'-0"	DWG. NO.	649.5000
			SHEET	1 OF 4

108969

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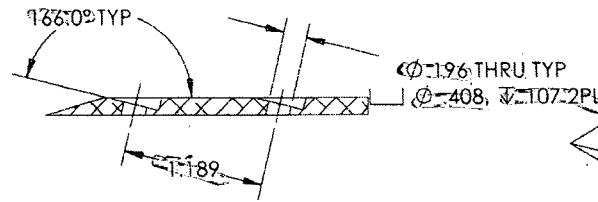
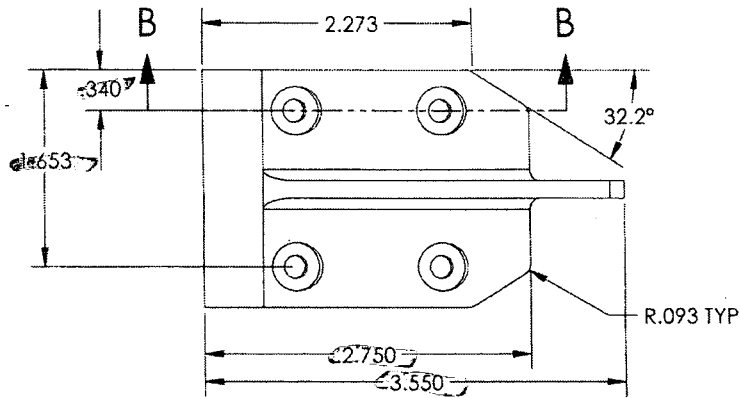
A
B
C
D



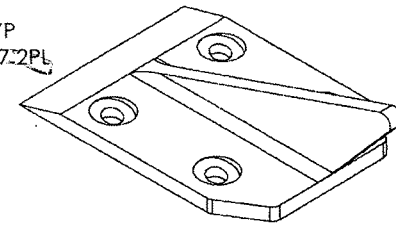
649.5011

ORIGINAL DATE 11-09-11		APICAL INDUSTRIES	
DRAWN BY A. DEAN	CHECKED P. BRAVO	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL P. BRAVO 11-09-11		DEFLECTOR	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		SHEET 2 OF 4	REV C
REV B	07/12/16	DWG NO. 649.5000	SCALE NONE

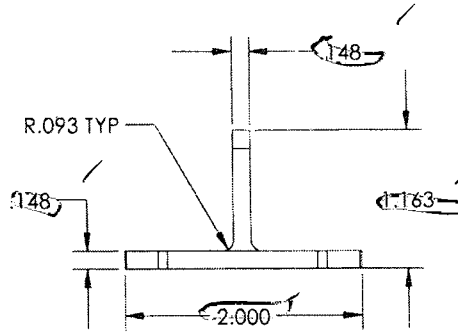
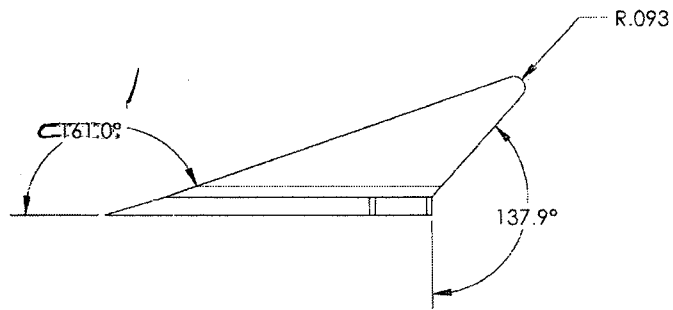
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SECTION B-B
TYP



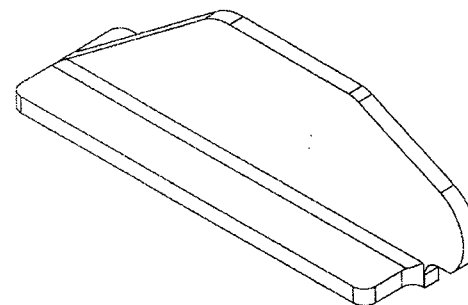
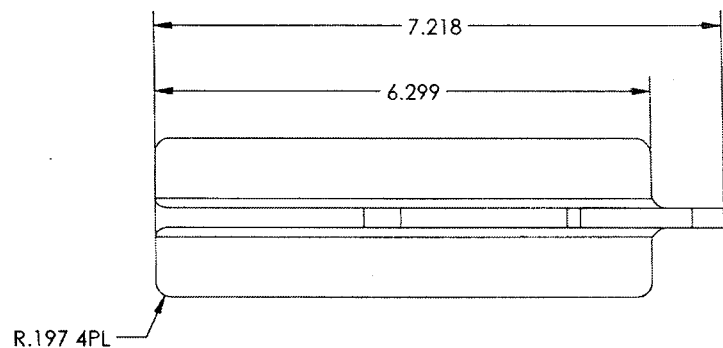
649.5012



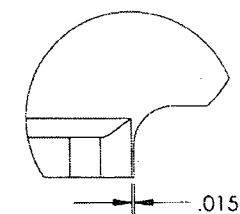
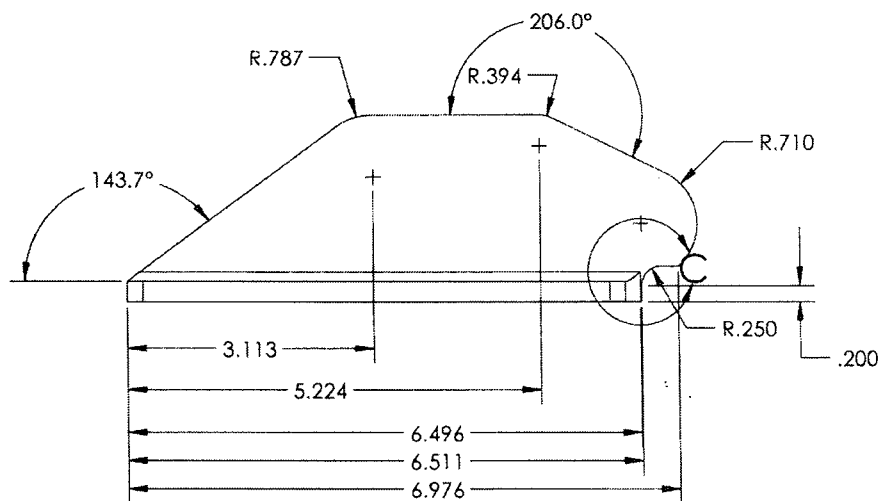
ORIGINAL DATE 11/02/11		APICAL INDUSTRIES	
DRAWN BY A. CHAM		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056 3312 (760) 724-5300	
DRAWING APPROVAL P. BRADY		DEFLECTOR	
CONTRACTING			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE 3 PLACE DECIMALS ± .005 ANGLES ± .5°		REV B	REV C
SCALE NONE		SHEET 3 OF 4	

108969

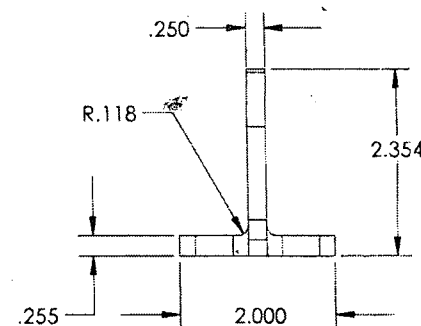
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649.5013



DETAIL C
SCALE 2 : 1.5



ORIGINAL DATE (MM-DD-YY) 11-03-11		APICAL INDUSTRIES		
DRAWN BY A. QUAN	CHECKED P. BRAYO	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760) 724-5300		
DRAWING APPROVAL P. BRAYO 11-03-11		DEFLECTOR		
CONTRACT NO.		SHEET	DWG. NO.	REV.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ± .03 ANGLES ± .5°		B	07M26 649.5000	C
		SCALE NONE SHEET 4 OF 4		

DART AEROSPACE LTD	Work Order: 108969
Description: deflector	Part Number: 649.5012
Inspection Dwg: 649.500 Rev: C	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
.340	$\pm .010$.344	/		Vern	SL-10
1.653	$\pm .010$	1.657	/		"	
2.750	$\pm .010$	2.745	/		"	
3.550	$\pm .010$	3.544	/		HG	
166°	$\pm .5^\circ$	166.2	/		ANGLE M	
1.189	$\pm .010$	1.189	/		HG	
Ø.196	$\pm .005$ - .001	.197	/		Vern	"
.408	$\pm .010$.410	/		"	
↓.107	$\pm .010$.104	/		HG	
161°	$\pm .5^\circ$	161.1	/		Angle M	
.148		.150	/		Vern	SL-10
2.000		2.002	/		"	
1.163		1.166	/		HG	
.148		.150	/		Vern	"

Measured by: SL	Audited by: J. A. DAS 08	Preliminary Approval:
Date: 13-12-02	Date: 13/12/05	Date:

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

10.04.15



A.T.G. Industries Inc.
731, rue Industrielle Rd.
PLATING DEPARTMENT
Rockland, On K4K 1T2
Canada
Ph: (613) 446-4544
Fax: (613) 446-4556

Pack List

Number: 62813

Date: 09-Jan-14

To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ship To


DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms		Ship Via	
Quantity	Description	Rev:	
1 lot	Part: ASST 19 PCS 646.9910 (11.90\$) 9 PCS 647.9315 (14.35\$) 10 PCS 649.5010 (34.00\$) 13 PCS 649.5011 (11.75\$) 32 PCS 649.5012 (7.30\$) 34 PCS 649.5013 (11.60\$) 16 PCS 649.5212 (9.00\$) 16 PCS 649.5214 (9.00\$) HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2 13 PCS D3229-7 (1.10\$) 16 PCS D3299-5 (1.15\$) BLUE ANODIZE MIL-A-8625 TYPE II CLASS 2 PRICE IS PER PIECE Job: 20140010	PO: 22353 Line:	
Certificate of Conformance			
A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order.			
ISO 9001 : 2008 REGISTERED ATG SALES-2010 TERMS APPLY			
DATE : 9/1/14			
CERTIFIED SIGNATURE : 			
RECEIVER SIGNATURE : _____			